

Application Bulletin

Industrial Waste In A Plastic Extrusion Plant

Lakos Separators Improve Efficiency, Cut Water-Waste Discharge Costs, Reduce Required Manpower

Plant waste, chips and debris from a Johns-Manville pipe manufacturing facility in Tucson, Arizona nearly eliminated this plastic extruding plant's attempt to maintain a "closed-loop" water reclamation system. Overcoming the multiple problems involved and satisfying all applicable local, state, and federal regulations, JM purchased and installed a Lakos Industrial Separator (See Figure A). According to Superintendent Billy N. Noon, the Lakos Separator restored their original plan for water re-use, also eliminating fouled spray nozzles and scaling problems.

This JM plant produces 3" – 12" water pipe and telephone ducting, shipping millions of pounds of pipe each year. For 24 hours each day, their extruding machines and production process demand 600 gpm of water on a continuous basis for their spray-type cooling nozzles (See Figure B) and other process equipment. Before the Lakos Separator was installed, foreign matter frequently fouled their equipment, causing uneven cooling and unsightly rippling, scratch marks and imperfections on their finished product.

A basket strainer was implemented to correct the situation, but was soon abandoned due to poor performance, excessive line pressure loss and the need to assign a machine operator to maintain a clean strainer and system.

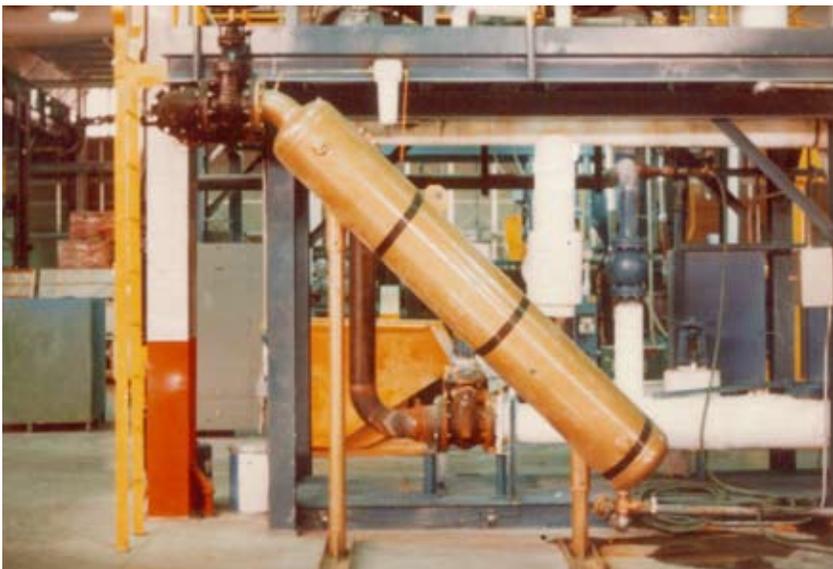


Figure A



Figure B

The Lakos Separator, now installed in several JM extrusion plants as well as the Can-Tex Industries facility in Mineral Wells, Texas, removes up to 93% of all solids as small as 74 microns (200 mesh) with no moving parts to wear out, no screens, cones or filter elements to clean or replace and effects only a very small line pressure loss. The particular installation in Tucson is completely maintenance free, utilizing a Lakos automatic purge system to discharge collected solids (sometimes up to 400 pounds per day) into a company-owned sump outside the plant.

The water re-circulation system now works well, their equipment is protected from unwanted solids and a scaling problem in their heat exchanger, thought to have been caused by hot (400° - 450°) sand, grit, and plastic chips creating a chemical imbalance, has been eliminated by the performance of the separator.

Others who have also used Lakos Separators:

ADVANCED REFRIGERATION; Fairfield, NJ
BELLEMEAD CONSTRUCTION; Parsippany, NJ
ERIE COUNTY PLASTICS; Corry, PA
FUTUREX; Marshall, IN
AMOCO; Seymour, IN
POLY HI; Ft. Wayne, IN
H-C INDUSTRIES; Crawfordsville, IN
SHELLER GLOBE; Union City, IN
FISHER/GUIDE; Anderson, IN
INGRESS PLASTEEN; Crawfordsville, IN
AUCILLA PLASTIC; Mishawaka, IN
LARDEN PLASTIC; Plymouth, IN
CREATEC CORPORATION; Harrodsburg, KY

CLAUDE LAVAL CORPORATION

Not connected with The DeLaval Separator Company

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